

## **Remarks**

### **Request for Reconsideration**

Reconsideration and allowance in view of the comments which follow, are respectfully requested.

### **Status of Claims**

Claims 1 – 23 remain pending in this application. No claim amendments are presently being proposed. The listing of claims shows all of the amendments relative to the claims made from the original issued patent.

### **Office Action of April 30, 2009**

In the Office Action dated April 30, 2009, the Examiner rejected Claims 1 – 23 as being allegedly obvious over Montana Burst in Gram Faceting Designs (“GFD” or “Montana Burst”) in view of Grossbard U.S. Patent No. 4,020,649 (“Grossbard ‘649” or “Grossbard”).

The Examiner stated that GFD discloses a two-step cut crown and brilliant-cut pavilion in the shape of an octagon with four equal length sides equal to four equal length corners, and a pavilion with eight rib lines extending in a straight line from the girdle to the culet. The Examiner stated that Grossbard disclosed a mixed-cut gemstone having corner lengths less than side lengths.

The Examiner stated that:

“matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art...”citing In re Seid.

The Examiner further stated that the shape of the stone is considered to be ornamental and serves no mechanical function. The Examiner then concluded that:

“Therefore, it would have been an obvious design choice to make GFD’s stone into the shape of Grossbard’s stone in order to change the aesthetical appearance of the stone.”

Applicant respectfully traverses the rejection based on obviousness.

**Because the Claimed Invention Has Mechanical Function,  
In re Seid Should Not Apply**

Firstly, applicant disagrees with the holding in In re Seid as having relevance to patentability of gemstones. The holding in the Seid case must be understood in the context of the facts of the case. The invention in Seid was ornamentation on a bottle which has only an ornamental and no mechanical function or purpose. In contrast, the claimed invention provides a facet arrangement which receives incident light through various facets including the table, refracts that light according to the Index of Refraction (“IR” or “RI”) of the material, further directs the light throughout the interior of the stone based on the particular facet arrangement, and directs light outward to provide brilliance, dispersion and scintillation to the wearer and others. Accordingly, each aspect of the facet arrangement provides a mechanical function and purpose in reflecting and refracting light, and each aspect of the claimed facet arrangement can be relied on for patentability.

**The Cited References Do Not Render Obvious  
Applicant’s Claimed Invention**

Applicant urges that the Examiner is over-simplifying the obviousness issue by selecting only certain features of Montana Burst to modify, ignoring what one of ordinary skill in the art would view as the intentions of both the Montana Burst and Grossbard designers, and whether the proposed modifications would run contrary to the designers’ intentions to produce a good stone with good characteristics. Montana Burst is directed to a stone which is considered by those of ordinary skill in the art to be very different than that of Grossbard, and one skilled in the art would not modify selected features of Montana Burst to use selected features of Grossbard as alleged by the Examiner.

Some of the different distinguishing features of the Montana Burst and Grossbard, which a person of ordinary skill in the art would view as important in finding these stones to be entirely different, are as follows:

<u>Montana Burst</u>	<u>Grossbard</u>
1. Directed to stone material having IR of 1.76 (corundum, specifically sapphire) (Montana has sapphires and spinels, but no diamonds)	Directed to diamond having IR of 2.41
2. Crown has <u>unequal</u> steps	Crown has <u>equal</u> steps
3. Octagon style (8 <u>equal</u> sides)	Emerald style (cut-cornered rectangular, with 2 longer and 2 shorter sides)
4. All <u>eight</u> pavilion sides have equal lengths	Four pavilion sides are <u>different</u> from four pavilion corners, and two opposing sides have different lengths than the other opposing sides
5. Same pavilion faceting in each side and corner	Different pavilion faceting in sides and corners
6. <u>Eight</u> rib lines in pavilion	Only <u>four</u> rib lines extending from girdle to culet
7. <u>All</u> eight pavilion rib lines extend in a straight line from girdle to culet	<u>None</u> of the four pavilion rib lines extend in a straight line to culet
8. <u>None</u> of the eight pavilion rib lines have a culet break	<u>All</u> four pavilion rib lines have a culet break (see side view)

The Montana Burst is directed to a corundum (sapphire or spinel) which has an IR of 1.76, different from a diamond IR of 2.41. The Montana Burst has unequal height steps, selected because of the characteristics including the IR of the stone. Applicant urges Grossbard stone, which is for a diamond, was selected to have equal height steps because of the IR of diamond. Applicant urges

that it would not have been obvious to modify the step arrangement of Montana Burst to have equal step heights like that in Grossbard because of the difference in the IRs of these two stones.

Another characteristic which makes these stones different is that the Grossbard stone is rectangular, having two longer sides and two shorter sides and yet shorter corners, whereas Montana Burst has eight equal sides. Montana Burst has same pavilion facet arrangement in each side and corner, whereas Grossbard has entirely different facet arrangement in sides than corners.

In view of the differences in stone type, shape, pavilion facet arrangement, and pavilion rib line number and arrangement, applicant urges that one skilled in the art views the Montana Burst and Grossbard as different designs achieving different objectives and that one would not have been motivated to modify the Montana Burst in view of any features of Grossbard.

Further, even if a person of ordinary skill in the art was selectively given the Montana Burst and Grossbard and was asked to arrive at a modified design based on these two references, there is no reason why that person would have arrived at a modification proposed by the Examiner, instead of some other modification. Applicant urges that the proposed modification was arrived at through hindsight, using applicant's disclosure as a guide, which is not a proper way to evaluate obviousness.

Applicant believes that it is improper to use applicant's claim as a guide comparing the present claims to the Montana Burst, see what is different, and then hunt for that different feature in other prior art. This is classic hindsight reconstruction, which is improper. The true test is whether the claimed design would have been obvious in view of the prior art. When making this assessment, applicant urges that one must look at the prior art references as a whole to see what they suggest about making any such proposed combination. Assuming one started with the Montana Burst as the starting point, one of ordinary skill in the art would first ask himself whether there would be any

motivation or reason to make any modifications to the stone, or to combine features of this stone with another stone, based on a host of features including the IR of the stone material. The Montana Burst goes to great lengths to detail a facet arrangement and cutting angles for the particular Montana material (corundum such as sapphire or spinel, not diamond), based on the intent to achieve a particular stone having a certain brilliance, dispersion (or fire) and scintillation, and given the shape of starting material (round). There is no evidence in the record to support why one would seek to deviate from the detailed specification for this stone. The same can be said for the specifications of the Grossbard stone.

Without reference to the present claim language (which provides a blueprint or roadmap of the invention), assuming one skilled in the art has as the starting point the Montana Burst and has access to all of the other prior art, there is no reason why he would then look to the Grossbard patent (relating to a cut-cornered rectangular diamond) for possible ways to modify the Montana Burst corundum stone. As described above, there are at least eight major differences between the Montana Burst and Grossbard which together lead one to view these stones as different. Applicant urges that there is no teaching or suggestion or other information sufficient to provide a motivation to modify the Montana Burst stone to have corner lengths substantially less than each of the side lengths.

Applicant also points out that all of the claims recite at least the following features:

1. Corner lengths substantially less than side lengths (along girdle or table);
2. Pavilion sides and corners defined by eight rib lines extending in a substantially straight line from the girdle to the culet.

Montana Burst fails to disclose feature 1 above. Grossbard fails to disclose feature 2 above.

In view of the many differences between the Montana Burst and Grossbard listed above, applicant urges that one skilled in the art would not be motivated to combine Montana Burst with Grossbard. Even if one would be motivated to combine them, there is no reason why one would select certain features of Montana Burst (discarding others) and combine them with certain features of Grossbard (discarding others) to approach the design as presently claimed as compared to some other structure.

**The Presently-Claimed Invention Has Enjoyed Commercial Success,  
Evidencing Non-Obviousness**

The Examiner has stated that the comparison of dollars spent on marketing should be showing that the dollars spent on the new line inventive gemstones is in-line with dollars spent on other new lines of gemstones. The Examiner has stated that, in order for commercial success to be supported, applicant would have to show that the dollars spend on the inventive gemstone is the same or similar to dollars spent on other new lines of gemstones, along with a showing that the sales of other new lines of gemstones for the same marketing dollar spent. The Examiner has also stated that the Declaration failed to show that it is the claimed gemstone that has caused the commercial success, and there could have been an increase in marital engagements during this period due to a population bubble being in the traditional marrying age bracket.

In response, applicant has demonstrated that the subject Lucida gemstone has been commercially successful relative to its closest comparable gemstone, which is the Legacy gemstone.

As previously reported, the subject Lucida gemstone was introduced in 1999, and the Legacy gemstone was introduced in 2004. These two products are the best products to compare because they cover over-lapping time periods, have been sold recently, and because both sales and marketing expenses from time of product introduction are available. In order to fully compare the subject Lucida gemstone sales with Legacy gemstone sales, from product introduction to 2007,

applicant submitted the Supplemental Declaration of Clair Mah (Mah Supp. Dec.) The sales and marketing expense data clearly indicated that sales of the subject Lucida gemstone far exceeded the sales of Legacy for the same marketing dollars spent. In 1999, Lucida sales were \$130M, and in 2000, Lucida sales were \$55.3M, (previously submitted of record). In 1999, Lucida advertising and marketing (“A&M”) expenses were \$981K, and in 2000, were \$1,814K (Mah Supp. Dec. ¶12). Combined with sales, advertising, and marketing expenses previously presented for the period 2001 – 2007, the results for Lucida are as follows:

<u>Period</u>		<u>A&amp;M</u>		<u>Sales</u>
2001 – 2007	\$	9,434K	\$	299.5M
2000		1,814K		55.3M
1999		981K		13.0M
Total	\$	12,229K	\$	367.8M

Comparing Lucida with Legacy over their respective sales periods from product introduction through 2007, we have the following:

<u>Period</u>	<u>Gemstone Style</u>		<u>A&amp;M</u>		<u>Sales</u>		<u>A&amp;M/Sales</u>		<u>Sales/A&amp;M</u>
1999-2007	Lucida	\$	12,229K	\$	367.8M		$\$12,229K/\$367.8M = 3.3\%$		\$30.08
2004-2007	Legacy	\$	5,239K	\$	65.4M		$\$539K/\$65.4M = 8.0\%$		\$12.48

In summary:

- For Lucida gemstones for the period 1999 – 2007 inclusive, advertising and marketing expenses worldwide as a percentage of sales worldwide, was about 3.3% ( $\$12,229K/\$367.8M$ ). Stated another way, sales volume per advertising and marketing expenses were ( $\$367.8M/\$12,229K$ ) = \$30.08.
- For Legacy gemstones for the period 2004 – 2007 inclusive, advertising and

marketing expenses worldwide as a percentage of sales worldwide was about 8.0% (\$5,239K/\$65.4M). Stated another way, sales volume per advertising and marketing expenses were  $(\$65.4M/\$5,239K) = \$12.48$ .

The advertising and marketing expenses for the Lucida SDR were only 3.3% of sales over its sales period 1999 - 2007, well below and less than half proportionally the advertising and marketing expenses of about 8.0% of sales for Legacy over its sales period of 2003 - 2007. Stated another way, inventive Lucida sales were \$30.08 per advertising and marketing dollar, far exceeding Legacy's sales of \$12.48 per advertising and marketing dollar. Clearly, Lucida gemstones have been hugely, commercially successful, relative to Legacy gemstones.

Applicant also respectfully points out that the previously submitted Supplemental Declaration of Detra Segar, stated that customers selected Lucida gemstones because of its unique faceting arrangement, and was the reason for their purchase.

The Segar Supp Dec states:

"3...Based on comments from customers, I believe that [the Lucida] gemstone cut is highly desirable and was the reason for their purchase."

The Declaration of Robert Greeff stated that the Lucida faceting arrangement is covered by the subject patent claims.

The Greeff Second Supp Dec states:

"24. The Lucida jewelry line contains essentially only gemstones which are described by the subject claims, so that virtually all of the value of the Lucida jewelry line is attributable to the Lucida gemstones covered by the subject claims."

Accordingly, applicant respectfully urges that the Segar and Greeff Declarations evidence demonstrates that customers have selected and purchased the Lucida gemstones because of the claimed faceting arrangement.



Applicant urges that the totality of the factual evidence submitted by way of the Declarations clearly establishes that the gemstone covered by the subject claims has been commercially successful.

Also, in response to the Examiner's statement in a prior Office Action that an increase in marital engagements during this period due to a population bubble "could" have accounted for the increased sales, applicant has submitted a document which establishes that the marriage rate has actually declined during the Lucida sales period. In 2006, a report entitled, "*The National Marriage Project*", reported (on pages 16 – 17, especially Fig. 1) that the annual marriage rates from 1970 have actually dropped by more than 10% per decade for this period, which includes the relevant Lucida sales period. Even though marriage rates had declined at a rate over 10% per decade, Lucida sales increased. Lucida also necessarily increased in market shares because, in a declining sales market, its sales displaced sales of other gemstone styles. Indeed, evidence of displacing other products in the marketplace is strong evidence of commercial success.

Applicant first respectfully points out that over the last several Office Actions, the Examiner has pointed to specific reasons why applicant's showing on commercial success was allegedly insufficient. In response to each Office Action, applicant has specifically addressed each of the Examiner's points. Specifically:

1. The Examiner stated that applicant's showing allegedly did not demonstrate a nexus between the claimed invention and the sales figures. Applicant responded by presenting evidence establishing more than sufficient nexus between sales of Lucida, and that Lucida was covered by the patent claims.
2. The Examiner stated that Applicant's showing allegedly did not establish that applicant's sales figures for the subject Lucida gemstone were attributable to the

claimed gemstone design, rather than some other factor, such as advertising.

Applicant responded by showing that Lucida sales were much more successful per advertising and marketing dollars spent than its Legacy gemstone line, the most-closely comparable gemstone in terms of product sales period.

3. The Examiner stated that applicant's showing of sales of the subject Lucida did not include a showing of advertising and marketing expenses for the time period when the Lucida gemstone was introduced, to compare to the time period when Legacy was introduced. Applicant responded by producing sales figures for 1999 and 2000, comparing the total advertising and marketing expenses (and sales numbers) for the subject Lucida gemstone over the entire sales period since product introduction to the same expenses and sales for Legacy gemstone over the entire sales period since market introduction.
4. The Examiner stated that applicant has not demonstrated that the commercial success of Lucida gemstones, which are almost entirely purchased as solitaire engagement rings, was not due to some other factor, such as an increased marriage rate over the sales period. Applicant responded with a showing that the marriage rate had declined over the Lucida sales period, thereby demonstrating that Lucida's increasing sales over this period was not due to any increase in marriage rate, and moreover, necessarily demonstrated an increased market share in the engagement gemstone market.

The above demonstrates that, at every request by the Examiner for a demonstrative showing, applicant presented evidence squarely addressing the Examiner's point.

Applicants respectfully submit that the showings submitted to date have been more than sufficient to demonstrate commercial success of the subject Lucida gemstone which is covered by the subject claims, and more than sufficient to demonstrate non-obviousness of the claimed subject matter.

Commercial success need simply establish a nexus between the subject matter claimed and the sales of the product. Applicant has clearly demonstrated the nexus, and has submitted evidence which establishes that the commercial success has not been attributable to factors other than the unique faceting arrangement as defined by the pending claims.

Now, in the April 30, 2009 Office Action, the Examiner raises yet additional points:

1. In order for the shape of a gemstone to be considered a patentable gemstone, the applicant “must” submit proof that the shape, cuts, and facets, produce an “unexpected effect” in the visual appearance of the stone.
2. Commercial success based on the shape and arrangement of the facets “must” link the success to the “unexpected” fire, brilliance, and scintillation produced by the stone.
3. There are other reasons why the subject gemstone is enjoying commercial success that are totally unrelated to the “patentable” features of the stone, for example, the “style”, comparing gemstone cuts to sunglasses.

Applicant will address these points in turn.

**“Unexpected Effects” is Not a Requirement  
for Patentability of a Gemstone**

The Examiner has not identified any authority that “unexpected effects” is a requirement for patentability of gemstones, and indeed, numerous gemstone patents issued by the Office appear to disprove the existence of any such “requirement”.

When the subject patent was originally examined, no requirement of “unexpected effects” was made. Numerous gemstone patents have been issued, both before the subject patent was originally issued and subsequently, and there appears to be no such requirement of “unexpected effects”.

**Although Not Required, the Claimed Design Provides  
“Unexpected” Fire, Brilliance, and Scintillation**

Without conceding the correctness of the Examiner’s statement that evidence of “unexpected” fire, brilliance, and scintillation of the claimed invention is required, applicant submits herewith a *Third Supplemental Declaration of Robert S. Greeff*. This Declaration, especially ¶¶ 26-29, explains that the inventor had an expectation of fire, brilliance, and scintillation, based on his commercial design before he cut rough material into a gemstone according to the subject claims. He subsequently made a gemstone according to the subject claims, which gemstone exceeded his expectations in terms of the fire, brilliance, and scintillation characteristics. Others were very impressed and told Mr. Greeff that the resultant gemstone cut exceeded their expectations.

In view of this evidence, applicant urges that the presently-claimed gemstone provides unexpected results.

**Demonstration of Commercial Success: Supporting Non-Obviousness of Gemstones  
Does Not Require Any “Link” to Unexpected Stone Features**

The Examiner has not identified any authority for the statement that commercial success based on the shape and arrangement of the facets “must” link the success to the “unexpected” fire, brilliance, and scintillation produced by the gemstone. Applicant respectfully disagrees with the Examiner on this point, and requests reconsideration and withdrawal of this statement.

### **Gemstone Designs Are Not Fleeting**

The Examiner stated that there are other reasons why the gemstone would be enjoying commercial success that are totally unrelated to the patentable features, for example, style. The Examiner stated that the popularity of gemstone styles is as fleeting as sunglasses. Applicant respectfully disagrees on this point, especially considering the cost and the significance of a gemstone investment in the minds of the purchasers. Gemstones of the engagement-type are well into thousands, and will typically be worn by a woman for many, many years. Sunglasses are ordinarily about 1% of the cost of engagement gemstones, are in style for perhaps a year, and typically break or get lost earlier, and have little, if any, significance in a buyer's life beyond a year. A purchase as significant as a gemstone, typically for an engagement ring, is one of the most important purchases marrying-age people make, and short popularity trends make little, if any, significance in selecting a gemstone.

### **Copying of the Claimed-Invention is Strong Evidence Supporting Non-Obviousness**

Other objective indicia of patentability supporting the non-obviousness of the claimed subject matter is copying of the claimed invention. Applicant has previously submitted website pages describing a gemstone market by Cut by Guage under the mark, Lucère. Page 2 of 3 of the [www.voyagerjewelrydesign.com](http://www.voyagerjewelrydesign.com) website shows the crown and pavilion of this gemstone. This Lucère gemstone is believed to incorporate the features of at least pending Claims 1 – 5, 8, 9, 11, 15, 16, and 21. Generally, the Lucère gemstone has a stepped crown with corners substantially shorter than its sides, and a pavilion having four sides and four corners defined by eight distinct rib lines extending from the girdle to the culet in substantially straight lines, as well as the other features recited in the listed claims. In the last two Office Actions of December 8, 2008 and April 30, 2009, the Examiner made no mention of consideration of this evidence, so applicant assumes that this

evidence was not considered. Applicant respectfully requests consideration of this evidence, and an acknowledgement that such evidence has been considered.

Of significance is that Slotar's selection of the mark "Lucère" shares the same first three letters of the applicant's mark, "Lucida", which applicant believes is strong evidence that Slotar wishes to communicate to the purchasing public that the Lucère gemstone is essentially the same design as applicant's Lucida gemstone.

### **Conclusion**

In view of the foregoing, applicant respectfully submits that the claimed invention is unobvious over the prior art cited, even if commercial success, copying and unexpected results, are not considered. After considering the strong evidence of commercial success, copying and unexpected results, applicant urges that the claimed invention is not obvious. Applicant believes that the application is in condition for allowance, and such action is earnestly solicited.

If a telephone interview would be of assistance in advancing the prosecution of the subject application, applicant's undersigned attorney invites the Examiner to telephone him at the number provided below.

## Fees

No fees are believed to be due. However, if any fee is determined to be due, authorization is hereby given to charge the fee to deposit account #02-2275. Pursuant to 37 C.F.R. 1.136(a)(3), please treat this and any concurrent or future reply in this application that requires a petition for an extension of time for its timely submission as incorporating a petition for extension of time for the appropriate length of time. The fee associated therewith is to be charged to Deposit Account No. 02-2275.

Respectfully submitted

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### CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this document is being electronically transmitted to the Commissioner for Patents via EFS-Web on July 9, 2009.

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